

REMARKS

Status of the Claims

Applicants acknowledge receipt of the Final Office Action dated February 20, 2008. Prior to the present response, claims 4-6, 9 and 11-24 remained pending of which 16-24 have been withdrawn. Applicants submit contemporaneously herewith a Request for Continued Examination (RCE) and the requisite fee.

With the present response, Applicants amend claim 4 to recite the limitations recited in claims 11 and 12 which are now cancelled as a result of their incorporation. That is, claim 4 is amended to recite that the polymeric binder is cross-linked with (a) at least one cross-linking agent based on an organic peroxide and, optionally, (b) at least one co-cross-linking agent chosen from an isocyanuric acid derivative or an acrylate or a methacrylate derivative derived from a polyol.

No new matter is presented. Reconsideration of the claims is earnestly solicited.

Rejection of Claims 4-6, 9, 11, 13 and 15 Under 35 U.S.C. § 103(a)

Claims 4-6, 9, 11, 13 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,910,358 to Thoen. The Examiner contends that Thoen teaches a floor covering comprising a latex composition including a polyolefin binder mixture of interpolymers including ethylenes and alpha-olefins. The Examiner further contends that Thoen simply fails to teach the amounts of the materials recited in claims 4 and 9. The Examiner finally contends the a skilled artisan could determine the workable ranges and optimize the effects of the fillers by varying the amounts employed.

Thoen is directed to a resilient cushion foam flooring and wall covering product free of polyvinyl chloride (PVC) and plasticizers. These products comprise a thermoplastic top covering layer integrated with a latex or thermoplastic foam backing layer (see Field of the Invention – column 1, lines 5-11). The resilient foam backing layer consists of (1) a solvent dispersed polyolefin polymer; (2) a melt processed polyolefin polymer; or (3) a latex composition (see column 5, lines 45-47). The latex compositions are aqueous dispersions or emulsions comprising a latex and a water-soluble catalytic curing agent (see column 6, lines 1-3). Thoen discloses that at least one organic or polymeric filler such as high density

polyethylene powder is added to the latex composition for improved resiliency and strength for polyolefin polymer substrate layers (see column 8, lines 40-47). However, Thoen teaches that the latex comprises a thermoplastic homopolymer or interpolymer which consists of at least one vinyl aromatic monomer and at least one diene, alpha-olefin, ethylene or substituted ethylene (see column 6, lines 3-7). Thus, the latex requires a vinyl aromatic monomer in addition to one diene, alpha-olefin, ethylene or substituted ethylene.

Contrary to Thoen, the polyolefin of claim 4 is absent a vinyl aromatic monomer and, instead, recites a mixture of at least two ethylene copolymers, wherein the ethylene copolymer mixture comprises a copolymer (a) as the main polymer and a copolymer (b) to control rheology and elasticity. Accordingly, a *prima facie* case of obviousness has not been established because Thoen does not teach or even suggest every element of independent claim 4 and, thus, the rejection of claims 4-6, 9, 11, 13 and 15 should be withdrawn for at least this reason.

Furthermore, Thoen does not teach or even suggest a polyolefin which is a mixture of at least two ethylene copolymers having the recited physical characteristics. That is, Thoen does not teach an ethylene copolymer mixture of a main polymer with a density of $0.89 - 0.91 \text{ g/cm}^3$ and a copolymer (b) to control rheology and elasticity with a density of $0.86 - 0.88 \text{ g/cm}^3$ and a melt flow index (MFI) > 3 . Applicants respectfully submit that the Examiner has incorrectly assumed that the densities and melt flow indices are inherent properties because the foam taught by Thoen and the flooring binder recited in claim 4 are, in fact, not of the same basic composition. Respectfully, Applicants request that the rejection of claims 4-6, 9, 11, 13 and 15 under 35 U.S.C. § 103(a) in view of Thoen be withdrawn, and these claims allowed for at least this additional reason.

Rejection of Claim 12 Under 35 U.S.C. § 103(a)

Claim 12 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Thoen in view of U.S. Patent No. 4,439,574 to Schuppiser or in view of U.S. Patent No. 4,702,868 to Pontiff et al. The Examiner notes that Thoen does not teach co-crosslinking agents as recited in claim 12, however, the Examiner contends that it would have been obvious to one having ordinary skill in the art to have modified the flooring of Thoen including the crosslinking agents as per claim 12 because Schuppiser teaches the agents are for crosslinking and processing of the polymer while

the resultant polymer exhibits good water resistance for floor coverings. With respect to Pontiff, the Examiner contends that it would have been obvious to one having ordinary skill in the art to have modified the flooring because Pontiff teaches acrylic acid and methacrylic blended with ethylene or its copolymer with any compatible polymer which allegedly aids in lower costs.

With the present response, Applicants cancel claim 12 and incorporate the limitation of claim 12 into independent claim 4 thereby obviating the rejection of claim 12. Claim 4, however, is not rendered obvious by the combination of Thoen, Schuppiser and Pontiff. Specifically, Thoen does not teach or suggest combining co-crosslinking agents with at least one cross-linking agent, and a polyolefin that is a mixture of at least two ethylene copolymers, much less a polyolefin having the physical characteristics recited in claim 4.. Schuppiser and Pontiff do not cure this deficiency. Furthermore, even if one of ordinary skill in the art would have been motivated to combine the teachings of these three references to arrive at a flooring binder, the resulting modification or combination of references would still fall short of yielding the flooring of claim 4 because none of the reference teach or even suggest the underlying binder composition. Accordingly, a *prima facie* case of obviousness has not been established because Thoen, Schuppiser and Pontiff do not teach or even suggest every element of independent claim 4 and, thus, this combination of reference cannot render claim 4 obvious.

Rejection of Claims 14-15 Under 35 U.S.C. § 103(a)

Claims 14-15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Thoen in view of U.S. Patent No. 6,399,689 to Scarlette. With respect to claim 14, the Examiner notes that Thoen fails to teach a mixture of filler comprising mineral intergrowths. The Examiner contends, however, that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the floor covering of Thoen to utilize a filler mixture of platelet-shaped and crystalline mineral intergrowths because Scarlette allegedly teaches such an alumina filler enhances physical properties and abrasion resistance without compromising flexibility, hardness and adhesion. With respect to claim 15, the Examiner contends that it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the floor covering of Thoen with pigments in a design and mineral intergrowth filler of a homogenous construction since it is allegedly known that such a mixture provides decorative

color and an effective filler for the flooring to provide for a consistent composition for the flooring.

As noted above, the rejection of claim 4 is improper and must be withdrawn. For the same reasons articulated above, Thoen does not teach or even suggest the limitations of claim 4 from which rejected claims 14-15 depend. Applicants also note that neither Thoen nor Scarlette, either alone or in combination, offer any suggestion, and provide no motivation, to use an ethylene copolymer mixture which comprises a copolymer (a) as the main polymer and a copolymer (b) to control rheology and elasticity. Furthermore, Thoen or Scarlette, either alone or in combination, do not teach or even suggest a flooring having a polyolefin capable of exhibiting the recited physical characteristics, namely containing a main polymer with a density of $0.89 - 0.91 \text{ g/cm}^3$ and a copolymer (b) to control rheology and elasticity with a density of $0.86 - 0.88 \text{ g/cm}^3$ and a melt flow index (MFI) > 3 . Thus, even if one of ordinary skill in the art at the time of the invention had modified the floor covering of Thoen with pigments in a design and a mixture of platelet-shaped and crystalline mineral intergrowths, the resulting invention would still fall short of yielding a flooring having the binder as recited in claim 4.

Accordingly, Thoen and Scarlette, either alone or in combination, do not teach or suggest every element of the claimed invention. Respectfully, Applicants request that the rejection of claims 14-15 under 35 U.S.C. § 103(a) over the combination of Thoen and Scarlette, be withdrawn, and these claims be allowed.


CONCLUSION

In view of the above amendments and remarks, Applicants respectfully assert that the rejection of the claims as set forth in the Office Action has been addressed and overcome. Applicants further assert that all claims are in condition for allowance and requests that an early notice of allowance be issued. If the Examiner believes any informalities remain in the application that can be resolved by telephone interview, a telephone call to the undersigned attorney is requested. Applicants reserve the right to subsequently take up prosecution of the claims originally filed in this application in continuation, continuation-in-part, and/or divisional applications.

A fee for a two-month extension of time is submitted contemporaneously herewith. No additional fees are believed due, however, the Commissioner is hereby authorized to charge any deficiencies which may be required, or credit any overpayment, to Deposit Account Number 09-0528.

Respectfully submitted,

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